



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CR 2212 No. 2 Main Engine

Component
Main Engine

Fluid
PETRO CANADA BP ENERGOL DS3 153 (800 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0844542	WC0844534	WC0844552
Sample Date		Client Info		16 Feb 2024	14 Jan 2024	10 Dec 2023
Machine Age	hrs	Client Info		115617	115138	114734
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		500	0	500
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	10	9	9
Chromium	ppm	ASTM D5185(m)	>8	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>3	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	2	2	2
Lead	ppm	ASTM D5185(m)	>18	<1	0	<1
Copper	ppm	ASTM D5185(m)	>80	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>14	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

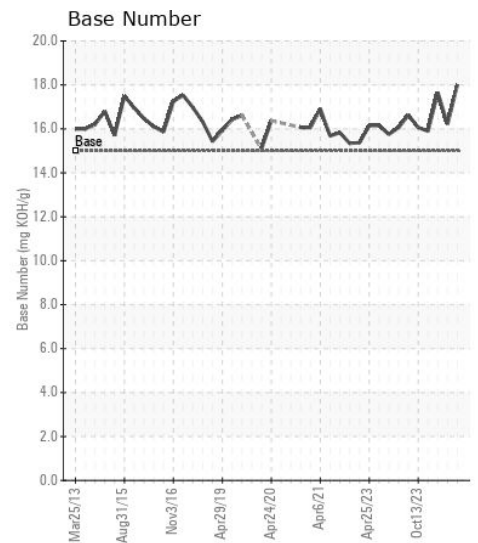
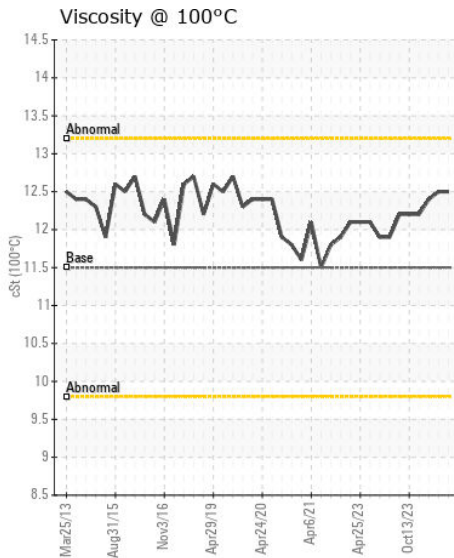
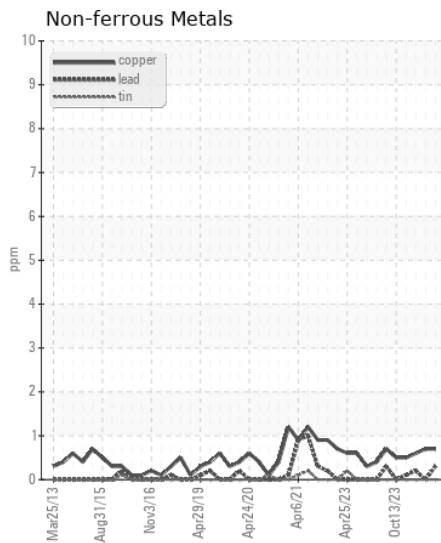
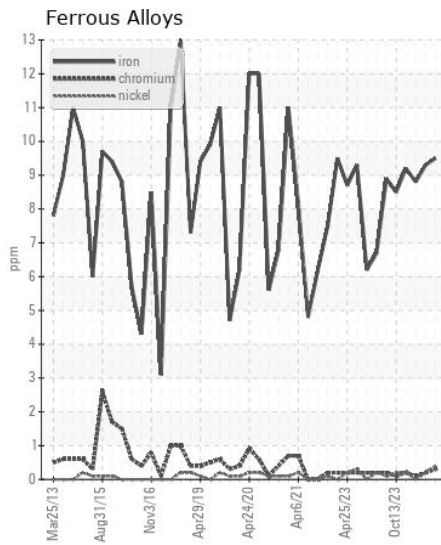
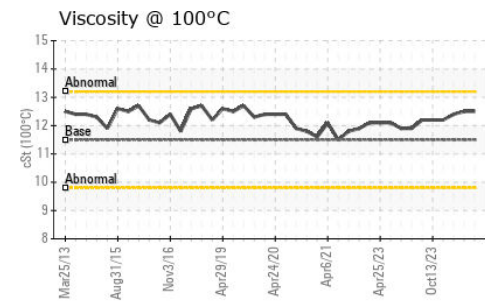
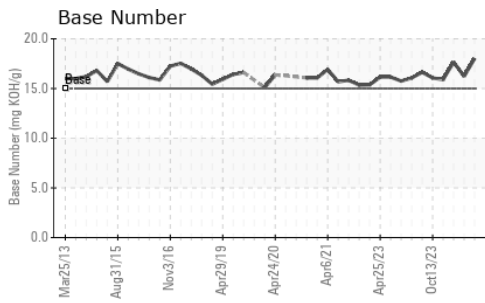
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	7	8	8
Potassium	ppm	ASTM D5185(m)	>20	1	2	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*		1	1	1
Nitration	Abs/cm	ASTM D7624*	>20	11.5	11.1	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	18.3	17.8
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)	>75	1	2	2
Boron	ppm	ASTM D5185(m)		3	3	4
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		1	1	1
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		41	39	37
Calcium	ppm	ASTM D5185(m)		5802	5877	5898
Phosphorus	ppm	ASTM D5185(m)		994	997	970
Zinc	ppm	ASTM D5185(m)		1095	1094	1088
Sulfur	ppm	ASTM D5185(m)		9799	9913	9364
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.6	9.1	8.9
Base Number (BN)	mg KOH/g	ASTM D2896*	15	18.01	16.22	17.65
Visc @ 100°C	cSt	ASTM D7279(m)	11.5	12.5	12.5	12.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0844542
Lab Number : 02618884
Unique Number : 5735994
Test Package : MAR 2
Received : 29 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 01 Mar 2024 - Wes Davis

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.